2015

Physics 121 General Physics I Spring 2015 Online

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On-line Physics 121
Course Information

WEB PAGE:

http://tycho.parkland.edu/cc/parkland/phy121o/spring/

INSTRUCTOR:

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Course Description:

This is the first semester of a college-level, algebra-based physics sequence. The main topics covered include mechanics (kinematics, dynamics, circular motion, work, energy, momentum, rotational motion, and simple harmonic motion), waves (physical waves and sound waves), fluids (buoyancy, pressure, and fluid dynamics), and thermodynamics (temperature, heat, the kinetic theory, and the 1st & 2nd Laws of Thermodynamics). This class is designed to be identical (in content, difficulty, and total time spent on the course) to any other Physics 121 offered - the only difference is there will be no in-class time and more individual learning time! The only requirement for this course is to have access to a computer with internet and email access. You will also be required to take two exams ON CAMPUS.

YOU MUST USE YOUR PARKLAND EMAIL ACCOUNT FOR THIS COURSE.
An email will be sent there getting you started in the class. To set up your parkland email account go to: http://stu.parkland.edu/

Note on Buying the Textbook for this Course:

For this course, you should buy the text Physics Fundamentals by Vincent Coletta. The current edition is the 2th. edition. This book will cover both Physics 121 and 122.

Course Components:

- THE TEXT: it is required in this course that you read the assigned chapters/sections in the text each week; since there will be little to no face-to-face interaction with the instructor, it is necessary to slowly and carefully read the text and look through examples; this aspect of the course is not graded but essential to learning physics (and exam questions on topics covered only in the text are fair game!).
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- LECTURES: after reading the text and any accompanying material, you will need to look over and answer some "lecture" questions; this must be done by midnight on Monday of each week.(Except week 1) This aspect of the course is worth 5% of the grade and essential to learning physics (remember, exam questions on topics covered only in the text are fair game!); the only thing you need to complete to get full credit are the slides in the lectures (and you will receive full credit no matter how many submissions you make); however, doing all the supplementary activities that come with the text will benefit you greatly in doing well on the labs, homework, quizzes and exams.
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- DISCUSSION: Obviously there is not a traditional classroom setting for this course. Instead we will use a discussion board to interact with each other. You should check the discussion board several times each week, just as if you were attending class. I will post any important announcements on the discussion board and you will have the opportunity to ask for and give help on specific problems. Keep in mind however, that many of the problems assign random numbers to each student, so a simple numerical answer is not helpful. Try to post the equation you used or the method you used to solve a particular problem. You must complete each lecture by Monday (Midnight) (Except week 1) and you must either post a question about the lecture or reading material (something you didn't understand or wasn't very clear or a question about how the topic related to everyday life) or you may instead start the other assignments (HW, quiz, lab) and post a question about a specific problem.

  By Wednesday at 8PM you must respond to a least two other student's postings. This is worth 5% of your grade. This is also the only opportunity to

earn some valuable extra credit in the course. Any student who post more than 2 helpful replies can earn up to two bonus points per assignment. If you earn these two points each assignment, it will improve your final letter grade by 1/3 of a letter grade which can be huge.

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- LABS: you must complete and submit these on-line lab exercises each week; these simulations will help you explore the concepts learned about in the text and lectures; these lab exercises will be graded for completeness and correctness; at the end of the semester, each lab will be weighted equally and together, the labs will count for 10% of your grade.
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- HOMEWORK: you must work out and submit these on-line problems each week; some of these problems will be "interactive examples" with extensive help sequences (although only the initial question is for credit) and others will be more traditional problems; these homework questions will be graded for completeness and correctness; you may submit answers as much as you like without penalty; at the end of the semester, each week's problems will be weighted equally and will be worth 10% of your grade.
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- QUIZZES: every week you must submit your answers to these online quizzes to evaluate your progress for the week; these quizzes will be graded for completeness and correctness; you can work on the quizzes throughout the week and change your answers as many times as you like but only your final submission will be graded; bin addition you will not know if you are right or wrong until after the grading deadline; at the end of the semester, each week's quizzes will be weighted equally and the lowest two quizzes over the semester will be dropped; the quizzes will count for 15% of your grade.
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- EXAMS: two times during the semester you will need to come in to take a multiple choice exam; the exam will have conceptual and calculational problems to evaluate your progress in learning physics; there is a place on Angel to sign up for a time period to take each exam; space will be limited so be prepared and sign up early; the exams will be 90 min long and have between 30 and 45 questions; the exams will not be cumulative (the first exam will cover weeks 1-7 and the second exam weeks 9-14); your average on the two of these exams must be greater than 50% to pass the course (exams will not be curved!); each exam will count for 25% of your grade; see weeks 8 & 15 for more info on the exams including sample practice tests with the same formula sheet you will get to use on the exam.
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- FINAL EXAM: This is longer comprehensive quiz that can be completed online. Unlike the other quizzes you may not ask questions about it on the discussion board.
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- GENERAL: no late work is accepted; after the scoring deadlines you cannot make-up any work; after the exam dates you cannot make-up any exams!

Weekly Deadline:

If you will be gone or miss some days, you must do the work ahead of time! Assignments will always be available at least two weeks before they are due. PLAN AHEAD! Do not wait until that afternoon (or even the night before) to start the assignment - you will not get it done and NO LATE WORK IS ACCEPTED!

Grades:

- 50 - Discussion
- 50 - Lectures
- 100 - Labs
- 100 - Homework
- 150 - Quizzes
- 250 - Exam #1
- 250 - Exam #2
- 50 - Final Quiz (Online)

You should be getting full (or close to full) credit on lectures, labs, quizzes, and the final exam. For this exercises you have as much time as you need (until the deadline) to work on your own and seek out resources. Getting full (or close to full) credit on these activities will give you a buffer should you not perform as well on the (difficult) exams as you would like to! However, keep in mind that you must get AT LEAST AN AVERAGE OF 50% ON THE TWO EXAMS TO PASS THE CLASS. If you want, you can email me before the weekly deadlines if you want me to look over your work/reasoning on the labs and quizzes; although I will not say for certain if your answers are right or wrong, I will look for problems or incorrect reasoning (this will help your scores on the weekly assignments but also help you learn physics!).

Grades will be distributed as follows after all your points are added and weighted as described above:

- A - 1000 to 900
- B - 899 to 800
- C - 799 to 700
- D - 699 to 600
- F - 599 or lower